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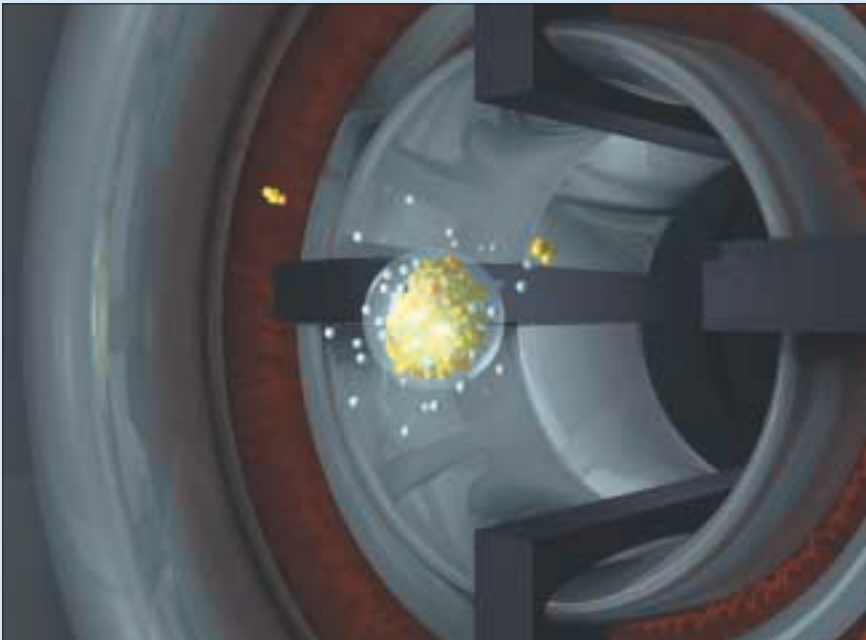
Vol. 29, No. 5

Weighty discoveries are elemental

By Anne M. Stark
NEWSLINE STAFF WRITER

Scientists from the Lab's Glenn T. Seaborg Institute and the Chemical Biology and Nuclear Science Division, in collaboration with researchers from the Joint Institute for Nuclear Research in Russia (JINR), have discovered the two newest super heavy elements, element 113 and element 115.

In experiments conducted at the JINR U400 cyclotron with the Dubna gas-filled separator between July 14 and Aug. 10, 2003, the team of scientists observed atomic decay patterns, or chains, that confirm the existence of element 115 and element 113. In these



THOMAS TEGGE/TID

The residue of the collision between a calcium isotope and americium creates the new 115 element that begins alpha decaying into element 113.

decay chains, element 113 is produced via the alpha decay of element 115.

See **ELEMENTS**, page 8

Energy Secretary unveils \$24.3 billion budget request for fiscal year 2005

Secretary of Energy Spencer Abraham released Monday the Department of Energy's \$24.3 billion budget request for fiscal year 2005, a part of President Bush's overall budget request to Congress.

Roll out of the budget request starts the fiscal year (FY) 2005 Congressional budget process, which will culminate with approval of a budget later this year. At \$24.3 billion, DOE's FY 2005 budget is the largest thus far.

Following are highlights from the budget rolled out by Abraham at DOE headquarters in Washington D.C.:

- Within DOE's Defense Goal, the FY 2005 budget supports an increase for the National Nuclear Security Administration (NNSA). The request for NNSA is \$ 9 billion, a \$383 million or 4.4 percent increase above last year.
- The FY 2005 budget request for weapons activities is \$6.6 billion, an increase of \$335 million from the FY 2004 enacted level. The request supports all programs and facilities associated with maintaining the nuclear weapons that comprise the nation's nuclear deterrent.



See **BUDGET**, page 3

AD Steve Patterson lauds year of accomplishments for Engineering Directorate

By Lynda Seaver
NEWSLINE STAFF WRITER

When it comes to turning an idea into reality, the Laboratory turns to the Engineering Directorate. That's how Engineering Associate Director Steve Patterson summed up a year of accomplishments within his directorate during two special all-hands meetings Monday and Tuesday.

See **ENGINEERING**, page 7

Committee starts search for new deputy director for S&T

A committee has been appointed by Director Michael Anastasio to search for a new Laboratory deputy director for Science and Technology.

The search committee is co-chaired by Bruce Goodwin, associate director for Defense and Nuclear Technologies, and Claire Max of the Insti-

See **SEARCH**, page 4

International security research facility opens

By Stephen Wampler
NEWSLINE STAFF WRITER

A ribbon was cut Thursday morning to mark the completion of the Laboratory's new International Security Research Facility.

Officials from the Department of Energy, the National Nuclear Security Administration and the University of California joined Laboratory leaders and employees to open LLNL's latest facility.

Larry Gresham, the deputy director of the DOE's Office Of Intelligence, told the audience of about 175 people:

"With this new International Security Research Facility (ISRF), I expect the collaboration with the DOE Office of Intelligence to be enhanced. You are a very important part of the intelligence community."

Gresham presented a plaque commemorating the building's opening from DOE's Office of Intelligence and NNSA to Wayne Shotts, the associate director of the Nonproliferation, Arms Control and International Security (NAI) Directorate and acting director of the Lab's Homeland Security Organization.

See **ISRF**, page 8



JACQUELINE MCBRIDE/NEWSLINE

Larry Gresham, left, David Crandall, Melanie Elder, Wayne Shotts, Michael Anastasio and Adm. Robert Foley, celebrate the opening of the International Security Research Facility.



A new venue
and new menu

— Page 3



An instructional
anniversary

— Page 5



A remedy for that
malicious code

— Page 7



LAB COMMUNITY NEWS

Weekly Calendar

Technical Meeting Calendar, page 4

Friday
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A representative from **California Casualty Insurance** will be in the Benefits Office today. Appointments are required and may be scheduled by calling 2-9955. California Casualty offers individual rates to Lab employees by payroll deduction for auto and homeowner/renter insurance. As with any employee-paid insurance coverage, employees are encouraged to comparison shop.

Sunday
8

There will be a **scheduled power outage** today from 7 a.m. to 3 p.m. in Bldg. 391. Air conditioning, heating and elevators will also be affected. For more information, contact Mark Cardoza, 3-0490.

Monday
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LLESA's Body Challenge 2004 begins today and runs through April 30. The challenge is a 12-week, Labwide employee health and fitness incentive program. Participants earn points by making healthy lifestyle choices in exercise, nutrition, stress reduction and health issues, and become eligible for prizes. The Body Challenge 2004 is open to all who work on-site. You do not have to be a member of LLESA's Fit for Business Program (FFB). Participants earn points for efforts at home, work or in the community. For more information, call 2-9403, 2-7736, or 3-7659.

Tuesday
10

A **Fidelity retirement counselor** will be available today and Wednesday. Fidelity Mutual Funds are available to UC's workplace retirement plan participants in addition to the UC-managed investment pools. To set up a one-on-one consultation, call 800-642-7131. When calling be sure to specify that you are an LLNL employee.

Thursday
12

The Association of Black Laboratory Employees (ABLE) is sponsoring its annual **Valentine's Day scholarship fundraiser** today from 11:30 a.m. to 1 p.m. in Bldg. 671, room 2310 (Topaz Room). For a \$12 donation, you'll receive each of the following: stuffed animal, 18-inch mylar balloon with "Happy Valentine's Day" and See's truffle in a decorative box. Only a limited number of items will be available and pre-orders must be placed by Tuesday, Feb. 10. Contact Gennetta Byrd, byrd2@llnl.gov, Lisa Rashidi, rashidi2@llnl.gov, or Jennifer Nelson-Lee, nelsonlee1@llnl.gov to place orders. There will be a variety of Valentine's Day gifts to choose from. Come early for best selection. A payment of cash or check (payable to ABLE) can be made upon pickup.

...

Alameda County Cattlewomen are sponsoring a Valentine dinner and dance, Feb. 14 at Veterans Hall, Livermore. For more information, call 455-1262

Science series features biodefense

LLNL biomedical scientist Frank Y. S. Chuang, LLNL bio-engineer Dora Gutierrez, and Tracy High School biology teacher Kirk Brown will team up to present "Biodefense: Detection to Protect the Nation," the second in the Lab's popular five week "Science on Saturday" lecture series, Saturday (Feb. 7) at 9:30 a.m. at the Amador Theater, 1155 Santa Rita Road, Pleasanton.

The talk will focus on the problem of infectious diseases, why they rank among the top ten causes of death in the U.S.; new diseases that are emerging; and, new detection methods used to safeguard public health. A live demonstration of biological detection will be performed with the help of selected volunteers from the student audience.

The series of lectures and demonstrations are intended for students in grades 6 through high school

and will run through Feb. 28. Also included in this year's program is the new component "Science Chat," an opportunity for students to meet and talk with world-class scientists after each presentation.

All lectures are free and held at the Amador Theater, 1155 Santa Rita Rd., Pleasanton. All lectures start at 9:30 a.m. and end at 11:15 a.m. Seating is on a first-come, first-served basis and there is no pre-registration. Directions, maps and a complete list of lectures in this year's program are available on the SOS Website at <http://education.llnl.gov/sos/2004/>

For additional information, contact: Richard Farnsworth, manager of LLNL's Science & Technology

Science on Saturday Series

◆ February 7, 2004 ◆

Biodefense: Detection to Protect the Nation
Frank Y. S. Chuang, biomedical scientist, LLNL
Dora Gutierrez, bio-engineer, LLNL
Kirk Brown, biology teacher, Tracy High School

◆ February 14, 2004 ◆

Radiocarbon Applications: Isotopes, Oceans, and Climate Change
Michaele Kashgarian, research scientist, LLNL
Sarah Palmer, science teacher, Tri-Valley Regional Occupational Program

◆ February 21, 2004 ◆

Star Dust: Catching a Comet By the Tail
John Bradley, astrophysicist, director of the Institute of Geophysics and Planetary Physics, LLNL
Dan Burns, physics teacher, Los Gatos High School

◆ February 28, 2004 ◆

Galaxies and Black Holes: The Good, the Bad, and the Ugly
Wil van Breugel, research astronomer, Institute of Geophysics and Planetary Physics
Dan Burns, physics teacher, Los Gatos High School

All lectures are free and held at the Amador Theater located at 1155 Santa Rita Rd., Pleasanton. All lectures start at 9:30 a.m. and end at 11:15 a.m. Seating is on a first come first serve basis.

Education Program, 2-5059.

IN MEMORIAM

Gary Brittain

Gary Williams Brittain, a longtime Livermore resident, died Jan. 30. He was 56.

Brittain was born Feb. 4, 1948, in West Virginia. Upon moving to Livermore, he worked in food service for six years at the Laboratory. He loved spending time with his grandchildren.

He is survived by his wife of 32 years, Kathleen;

his sons, Mark Alan Brittain and his wife Julie, of Livermore, and Kevin Roy Brittain of Livermore; his brother, Richard of North Carolina; and his two granddaughters, Aimee and Allison Brittain of Livermore.

A celebration of life will be held from 11 a.m. to 1 p.m. Saturday at 1009 Murrieta Blvd., No. 49, Livermore. Callaghan Mortuary is handling arrangements.

James 'Jim' Bradford Orr

Editor's note: Some of the information in the original announcement published Jan. 30 was incorrect. Here is the corrected version.

James "Jim" Bradford Orr died Dec. 17 in Fort Collins, Colo. He was 87.

He was born in Redlands, Calif. where he grew up and attended the University of Redlands. Orr met his wife, Betty, while a graduate student at UC Berkeley and they were married in 1942. During World War II, Orr served in the military as a meteorologist. After the war, he worked as a geologist for the National Park Service at the Lava Beds National Monument, Mt. McKinley National Park, Alaska and Volcano National Park in Hawaii.

Returning to Berkeley, Orr worked as an industrial safety and fire protection engineer. After retiring from private industry at age 60 in 1976, Orr worked at LLNL as a safety engineer in Hazards Control until 1989, enthusiastic in his work. In retirement, he worked with professional organizations for recognition of safety and fire protection engineers under the California professional engineering registration.

He was a lifelong avid outdoorsman. Orr was preceded in death by his wife of 56 years, Betty. He is survived by a daughter, Nora James of Fort Collins, Colo.

Newsline

Newsline is published weekly by the Internal Communications Department, Public Affairs Office, Lawrence Livermore National Laboratory (LLNL), for Laboratory employees and retirees.

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Web site: <http://www.llnl.gov/PAO/>

AROUND THE LAB



Checking out the new cafe



The new Central Café opened Monday and the first two customers were Chris Nishida and Carol Twiss. According to Michelle Quick, food service group leader, “Our customers are giving rave reviews on the facility design, new food choices, shorter checkout lines and the panoramic views.” The cafe is now offering full service and a wide variety of menu options. A grand opening, complete with promotions, prizes and food sampling, is planned for the week of Feb. 23.

‘Low Carb vs. Low Fat’
topic of upcoming talk
for Healthy Heart Month

Low Fat? Low Carb? Net Carbs? What does it all mean?

Find out Feb. 17 as Phil Arzino, the Health Services Department’s Health Promotion manager, and Bill Pereira, an HSD physician and editorial board member of the UC Berkeley Wellness Letter, discuss “Losing Weight — Making Sense of the Low Carb vs. Low Fat Controversy.”

Sponsored by the Safety and Environmental Protection Directorate as part of Healthy Heart Month, the talk will run from 11:30 a.m. to 12:30 p.m. in the Bldg. 361 auditorium.

As Arzino notes, in the past 40 years Americans have decreased the percent of fat in their diet and yet have gained considerable weight. The Centers for Disease Control declares the country’s rise to obesity to be an “epidemic.”

Are carbohydrates the problem? Is Robert Atkins’ low-carb diet the answer?

Says Arzino: “We encourage employees to join us Feb. 17 to explore this issue.”

The talk, Arzino said, is an update of a combating-cardiovascular-disease-presentation he made to NIF employees in January.

“The low carb-low fat controversy is a really loaded topic,” Arzino said. “It is very emotional. People on both sides of that fence feel very, very strongly about these dietary regimens.

“In our talk, we present some of the science around the controversy, what the claims are, what is real about the claims and how to make intelligent choices for yourself.”



LLESA

Cut out to be fit

Tommy Smith (left), deputy associate director of Strategic Initiatives and Diversity, Administration and Human Resources Associate Director Jan Tulk and Jim Lopez, AHRD principal deputy associate director, cut a ribbon Wednesday to officially dedicate FitStop in Bldg. 415. FitStop offers free weights and cardiovascular machines to employees looking to stay fit. Membership is \$30 for non Fit For Business members and \$10 for FFB members.

BUDGET

Continued from page 1

- In FY 2005, \$1.35 billion is requested for the nuclear nonproliferation program, a \$15 million increase over FY 2004’s enacted level.
- The Department’s safeguards and security funding in the FY 2005 request totals \$1.38 billion, an increase of \$107 million over the FY 2004 enacted level. Safeguarding and securing DOE’s nuclear facilities, materials and information, and protection of DOE employees, remain top Administration priorities. The FY 2005 budget fully addresses escalated security requirements identified in a post-September 11 reevaluation of potential threats against DOE sites and materials across the country.
- Funding of \$3.4 billion is budgeted for fundamental scientific research within the Science

- Goal, an increase of roughly 2 percent over FY 2004 when excluding Congressional additions in the Omnibus and Energy and Water Appropriations bills.
- The Department in FY 2005 has budgeted \$209 million, an increase of \$8 million over FY 2004, to continue the revolution of nanoscience research, the study of matter at the atomic and molecular level.
 - The Department continues its commitment to the future of fusion science research with a request of \$264 million, slightly above the FY 2004 level. Within that amount, DOE’s contribution to the International Thermonuclear Experimental Reactor (ITER) project in FY 2005 is \$38 million, \$30 million more than last year, and is consistent with the Administration’s renewed commitment to contribute to this \$5 billion cost-shared project that may ultimately lead to a fusion power plant that delivers electric power to the grid.

- Research on microbes through the Genomes to Life program, addressing DOE energy, environmental, and national security needs, continues to expand from \$64 million in FY 2004 to \$68 million in FY 2005. Genetic DNA mapping is bringing enormous benefits to medical science. DOE, through this program, will attempt to use genetic techniques to harness microbes that can eat pollution, create hydrogen and absorb carbon dioxide. The research in this area can translate into gene therapies for illnesses such as cystic fibrosis, sickle cell anemia, diabetes and cancer.
 - President Bush’s FY 2005 budget includes \$8.6 billion to support the goal of protecting the environment. This amount includes large increases to accelerate environmental cleanup (increase of \$426 million) and establish a permanent nuclear waste repository (increase of \$303 million).
- The entire FY 2005 budget can be viewed at <http://www.energy.gov>.



NEWS YOU CAN USE

All you can learn through upgraded U-Learn site

By Bob Hirschfeld
NEWSLINE STAFF WRITER

Do you wish you knew more about the inner workings of your computer, or a complicated new software program? Or maybe you need to sharpen your leadership skills? How about that class on investing you’ve always wanted to take?

Now those desires can become reality for Lab employees who tap into the newly upgraded U-Learn. U-Learn offers a set of online learning opportunities sponsored by the Employee and Organizational Development Division of the Administration and Human Resources Directorate.

All it takes is a visit to <http://ulearn.llnl.gov> and free registration.

This week, U-Learn re-launched its Website with significantly upgraded offerings from SkillSoft, an outside vendor.

Compared to its previous catalog of 300 online courses, U-Learn now provides 1,800 courses, 1,500 job aids, and 5,000 SkillBriefs. In addition, the contents of more than 5,000 books are available in digital form, with some 200 titles being added every month. And, anyone with a Palm or similar PDA can download synopses of some

courses for future reference.

A unique feature of the system – Ask My Mentor — allows you to extend your searches by sending personalized inquiries to SkillSoft representatives, who will track down an appropriate expert to answer your question.

The course catalog provides three essential curriculum areas: Business Skills, Information Technology, and Test Preps for IT Certifications.

In addition to taking the courses online, they can also be downloaded to your laptop computer so you can take a course without being online. The system keeps track of your progress, so you can work at your own pace. If you are unable to complete an entire project in one sitting, there’s no need to start over again. Your work is bookmarked, and you will automatically be returned to the point where you left off.

Users can access the system from home using their own PC and Internet Service Provider (ISP) although users can still use their ISDN, VPN, or IPA/WPS accounts..

Lab users who complete U-Learn classes can

request L-TRAIN credit.

The newly added “Books24x7” online book section incorporates four libraries: BusinessPro, ITPro, FinancePro, and Office Essentials and may eventually incorporate an EngineeringPro library.

A sophisticated search engine lets you locate materials relevant to your requirements. The results will not only include book titles, but even links to chapters that pertain to your query, even if the book itself is not devoted to that subject.

U-Learn is only available to PC users although workstations are available at the Training Center (Trailer1879) for those users who do not have a PC computer. There are currently 1,000 user licenses available and are issued on a first-come, first-serve basis.

U-Learn has been part of LLNL since 1996. Future upgrades will focus on integrating U-Learn with “My LLNL” and “L-TRAIN.”

Contact Leslie Positeri at 3-3008 or by e-mail at positeri1@llnl.gov for additional information.



SEARCH

Continued from page 1

tute of Geophysics and Planetary Physics. Members of the committee include; Steven Ashby; Elaine Chandler; David Eaglesham; Christine Hartmann-Siantar; Ed Hartouni; Omar Hurricane; David McCallen; Robin Newmark; Ellen Raber; Mark Strauch; Lisa Stubbs; Karl Van Bibber; Bruce Warner and Professor Raymond Jeanloz of UC Berkeley.

Hal Graboske has been serving as Acting deputy director for Science and Technology (DDST) since the departure of Jeff Wadsworth, who now serves as director of Oak Ridge National Laboratory.

The DDST has line responsibility for the institutional research portfolio, including the Laboratory Directed Research and Development Program (LDRD), collaborative research with university faculty and staff, and institutional planning activities and reporting.

In addition, the DDST is the principal contact of the Laboratory on science and technology matters and represents the Laboratory externally to constituents such as the University of California, the National Nuclear Security Administration Department of Energy, the DOE Office of Science, peer organizations, national laboratories, universities and private industry.

Employee comments and suggestions are welcome and can be emailed to brucegoodwin-claire-max@llnl.gov.

Technical Meeting Calendar

Friday
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INSTITUTE FOR GEOPHYSICS & PLANETARY PHYSICS

“Massive Black Holes, Gravitational Waves & Pulsars,” by Don Backer, National Radio Astronom-

my Observatory. Noon, Bldg. 319, room 205. Contact: Wil van Breugel, 2-7195, or Sharon Taberna, 3-6290.

Monday
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BIOSECURITY & NANOSCIENCES LABORATORY

“MEMS/NEMS Technology Development at NASA/JPL for

Space Exploration,” by Thomas George, Jet Propulsion Laboratory. 2 p.m., Bldg. 151, room 1209 Stevenson Room (P-cleared). Contact: Joe Tringe, 2-7725, or Brynn Bollinger, 2-6637.

PHYSICS & ADVANCED TECHNOLOGIES

“Atomic Physics in Dense Plasmas,” by Dick More. 10:30 a.m., Trailer 2774, room 1028 (Enterprise Room). Contact: Stefanie Landes, 2-3201.

UNIVERSITY RELATIONS PROGRAM

“Sum-Frequency Spectroscopy as a Novel Probe of Molecular Chirality,” by Mikhail Belkin, UC Berkeley, as part of the two-day interview process for the Lawrence Fellowship.

10 a.m., Bldg. 319, conference room 205. Contact: Rich London, 3-2021, Brenda Foster, 3-8257, or Edie Rock, 4-4035.

Tuesday
10

CHEMICAL BIOLOGY & NUCLEAR SCIENCE DIVISION

“A New Approach for Determining In-Situ Rates of Reduc-

tive Dechlorination in Groundwater,” by Jennifer A. Field, Department of Environmental and Molecular Toxicology, Oregon State University. 11 a.m., Bldg. 151, room 1209, Stevenson Room. Contact: Cheryl Moody Bartel, 4-4144, or Beverly Zumwalt, 2-7535.

INSTITUTE FOR SCIENTIFIC COMPUTING RESEARCH

“Statistical Condition Estimation,” by Alan Laub, UC Davis. 1:30 p.m., Bldg. 361 auditorium (property protection area). For more information see <http://www.llnl.gov/casc/calendar.shtml>. Contact: James McGraw, (ISCR) 2-0541, or Leslie Bills, 3-8927.

LC CUSTOMERS MONTHLY MEETING

9 - 11 am., Bldg. 451, White Room (P-cleared). Contact: Jean Shuler, 3-1909.

INSTITUTE FOR SCIENTIFIC COMPUTING RESEARCH

“Designing for Usability,” by James Hobart, Classic Systems Solutions Inc. 2 p.m., Bldg. 451, room 1025 (property protection area). For more information go to <http://www.llnl.gov/casc/calendar.shtml>. Contact: Kyle Halliday, (CADSE) 2-5654, or Leslie Bills, 3-8927.

Friday
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INSTITUTE FOR GEOPHYSICS & PLANETARY PHYSICS

“Star Formation Rate Discrepancies & the Madau

Plot,” by Lisa Kewley, Smithsonian Astrophysical Observatory. Noon, Bldg. 319, room 205. Contact: Wil van Breugel, 2-7195, or Josie Morgado, 2-7181.

BIOSECURITY & NANOSCIENCES LABORATORY

“Using Nonlinear Dynamics for Performance Enhancement in Micro and Nano-scale Sensors,” by Kimberly L. Turner, UC Santa Barbara. 2-3 p.m., Bldg. 151, room 1209 Stevenson Room. Cookies and coffee will be served. Contact: Jim De Yoreo, 3-4240, or Katie Thomas, 2-7903.

NEWS OF NOTE



Instructional Television celebrates 30 years of being there

By Linda Lucchetti

NEWSLINE STAFF WRITER

Engineering and the Administration and Human Resources Directorate joined together to celebrate 30 years of graduates from the UC Davis Instructional Television (ITV) Program.

During the ceremony, Harry Brandt, professor emeritus at UC Davis, received a special award for his numerous contributions to the Lab since 1974. Brandt has served as a consultant supporting Mechanical Engineering, as well as an advisor to current and new UC Davis students. Presenting the award on behalf of the Laboratory, Deputy Director for Operations Glenn Mara thanked Brandt, and described him as a “human dynamo” and “zealot for education.” “The program’s return on investment has paid great dividends. The Lab owes much of its intellectual capabilities to the University of California, Davis,” Mara said.

ITV, coordinated through Employee and Organization Development Division, links Lab employees seeking graduate degrees in engi-



JACQUELINE MCBRIDE/NEWSLINE

Glenn Mara, left, presents a collection of student remembrances to Harry Brandt for his numerous educational contributions to the Lab.

neering or computer science to UC Davis classrooms, via microwave and has been successful in turning out 128 graduates — 111 masters and

Ph.D. recipients and 17 certificate recipients. The program has graduated many Sandia and Laboratory employees, including Jeff Williams, deputy associate director of Mechanical Engineering.

Two Lab employees and current ITV students who provided their personal testimonies about the program’s success were Hank Childs of the Computation Directorate, who is seeking a Ph.D. in computer science and Lisa Poyneer, of Engineering, who is seeking a Ph.D. in electrical engineering.

Childs said: “ITV provides a fantastic opportunity for Lab employees,” giving high marks for its administrative efficiency. Poyneer said that the program enables employees to “trim off the extras and pick the classes that are applicable.” “Dialing in to the Davis classroom is as good as being there,” she added, commenting on the interactive talk-back system that allows off-campus students to ask questions, give answers, and participate in classroom discussions.

For more information about the ITV program, go to the Web at itv.engineering.ucdavis.edu or call Kathy Zobel, 2-9335.

BRIEFLY

EYH seeking volunteers

Organizers of the Tri-Valley Expanding Your Horizons Conference on Saturday, Feb. 28, are looking for volunteers for day-off facilities support and hallway monitors. The conference will be held at SBC in San Ramon (off Bollinger Canyon Road near Target) from 8 a.m. to 4:30 p.m.

Facilities support involves moving equipment back and forth from the SBC loading dock to the various workshop rooms. Hallway monitors provide hallway security and direct students. EYH is a conference designed to encourage young women in grades 6-12 to pursue math and science through hands on workshops and activities. Further information and registration material may be obtained at <http://www.llnl.gov/eyh/eyh04.html>. To volunteer, contact Evelyn Fearon, 3-1817, or fearon2@llnl.gov. For additional information about the conference, contact the hotline at 422-2453 or email eyh-tv@llnl.gov.

Organizers also are looking for volunteers to help stuff packets. The EYH packet stuffing party will be from 11 a.m. to 2 p.m. on Tuesday, Feb. 24, in Bldg. 170, rooms 1091 and 1092. You will need a badge to access this building, located next to the Westgate entrance. For more information or a visitor’s badge, contact Sheri Ann Dante, dante3@llnl.gov or Sarah Roberts, roberts28@poptart.llnl.gov.

It pays to know people

There are a number of positions currently posted that are designated for employee referral bonuses. If a new

employee identifies you as having referred them for one of these positions, you may receive a bonus award. Bonus awards can be \$500, \$1,500, or \$3,000. Find the designated postings on the newly redesigned ERBP Website: http://www-r.llnl.gov/human_resources/RED/erbp/ERhome3.html. Make sure to bookmark this Website so that you can visit it frequently, as jobs are posted daily and newly designated postings may be listed. If you have questions about the ERBP program, contact Dawn Abu Jassar at abujassar1@llnl.gov, or 3-6034. You may also contact your designated employment specialist.

R&D 100 Awards due dates

Authors of 2004 R&D 100 Awards entries are reminded to initiate the IM Review & Release process of their final drafts this year, as well as sending a copy to IPAC, in early to mid February. Applicable videos, CDs and/or photos must be included for approval. Final bound entry packages are due to Lisa Chartrand by Monday, Feb. 23. For more information go to the IPAC R&D 100 Award Website <http://www-r.llnl.gov/IPandC/emp/> or contact Lisa Chartrand, 2-2297, chartrand1@llnl.gov.

Contact information vital

A recent experience by a contract employee underscores how important it is for each person to carry up-to-date contact information at all times, whether on business or personal travel. The employee was in an auto accident caused by a blowout, was dazed, and could not remember personal information when help arrived. Medical care was not delayed, but because the employee did not have good contact infor-

mation readily available, the person was in treatment for more than seven hours before friends could be notified and get to the hospital. Employees are urged to read the lessons learned about this incident for more details of what occurred http://www-r.llnl.gov/es_and_h/lessons/pdf/31_emerg_info_form.pdf

Most important, the lessons learned includes a set of recommended actions for employees to take, plus an emergency contact information card that can be filled out and carried in a wallet.

Volunteers needed for Science Fun Fair

The Dublin and Pleasanton Unified School Districts are seeking Lab volunteers for their Science Fun Fair on Tuesday, Feb. 17, from 8:30 a.m. to noon. Volunteers are needed to interview students in kindergarten through fifth grade about their science fair projects. Interviews will not be used for competition, recognition or grading.

Rather, each student receives a button, ribbon and personalized certificate just for participating.

Volunteers can be scientists, engineers, or anyone willing to interview students and provide positive and encouraging comments while giving a sense of professionalism to the event. Organizers anticipate more than 200 volunteers will be needed to evaluate 3,500 projects. Volunteers will be assigned to one of Dublin and Pleasanton’s 14 elementary schools.

Lunch will be provided for all interviewers. To participate, call Catherine Brown at 833-2560 or e-mail scienceinterview@earthlink.net.



AUTOMOBILES

1986 - Toyota Camry. AT/AC/CC/155 K mi./single owner/ no smoke/blue/fair condition. \$975. 925-253-1467

1998 - Ford Escort ZX2 Sport Ed. 71k miles. Leather interior, AC. Power windows, moonroof, mirrors and doors. Prem. sound.6-CD changer. Mint cond. \$4500 obo 925-518-9341

1987 - Pontiac Fiero SE, Silver, 15K miles (not a misprint), AT/AC excellent condition, one owner, \$3,200 925-443-7531

1992 - Ford Explorer, 2-door sport, 5-speed, 110K miles, PW, PL, CC, tinted windows, runs good, \$1600. 925-292-0348

1986 - GMC Safari Minivan. Starcraft custom van with new tires, low miles. Needs minor mechanical work. Body in Excellent condition. \$1000. 925-484-0697

1998 - Volvo V70 GLT Wagon. White. 77K miles. Leather, CD player, traction control. Great family car! \$11,450. 925-362-9702

1994 - Honda Civic EX 4 door with new automatic transmission, AC, tinted windows, power locks/windows, AC, remote entry, moonroof. Great condition. \$4200. 925-449-0947

1998 - Toyota Camry LEV-6, 59K miles. A/C, cruise control, PW/PL, AM/FM cassette. New tires. Great condition, fun to drive. One owner. \$9,000. 925-829-3226

2003 - TOYOTA CAMRY 4 cyl, auto, ps, pb, ac, p/seats, pdl, p/mirrors, p/windows, cc, tilt, cd-cassette-am/fm, air bags, non smoker, garaged,\$16500. 209-629-4983

AUTOMOBILE ACCESSORIES

Zymol car care kit w/wax, wash, detail, leather cleaner & conditioner in wooden box. Brand new, great Valentine gift! \$25 (paid \$40) 925-648-0671

Wheels Advanced Auto Tech, Moda R7 22x10 w/GoodyearEagle GTII P285/50R20 tires. 6lug ChevyTahoe 4Kmiles only. \$900 209-825-0326

Rims with tires 16 inch off 1999 Tahoe LT some rubber left 50.00 925-337-0057

Package Sale, \$1,700.00 T-Style Hood Cover w/Red Flames, 2 Chrome Reverse Plates, and 17 inch Kronix Chrome Wheels. 209-824-2618

Rims, Weld Scorprios 16x14 off Ford F-250 w/33x14.50 Super Swampers \$1,100. 209-634-1235

BICYCLES

20 inch, five speed bicycle. Good condition \$20 209-836-3481

Trek 6500 Mountain Bike like new one year old, used 10 times. Large frame for tall man, red in color. \$500.00 or best offer 925-373-0758

BOATS

1975 Tiki Jet Boat, All New Paint,Seats,Carpet, Guages,Am/Fm CD Player. Boat In Very New Condition Must See, 455 Olds, Berkley Jet. \$ 6500.00 OBO 209-543-0722

Ocean-going Kayak, SeaScape2, (2-3 person), \$600, complete set of accessories included. Also for sale, Yakima racks and saddles for \$100. 925-449-1270

CAMERAS

Two Portable Projection Screens Da-Lite - Silver Lenticular surface 40x40 Galaxy - Glass Beaded surface 40x40 \$15/each 510-653-1017

ELECTRONIC EQUIPMENT

Sony Vaio PGC 505GX (Superslim laptop computer), PGCA CD5 (CD) and extra battery for sale. Includes OEM software. Asking \$375.00. 650-348-8872

Small countertop TV, UHF/VHF. Works good. 10.00. 510-537-7222

CLASSIFIED ADS

Epson 1280 Perfection Scanner. \$20. All drivers and cables. Works great, we moved up to an all-in-one machine 925-516-1348

USB Host Cable for Toshiba Pocket PCs. Adds a USB port (keyboard, ect) to your Pocket PC. Toshiba p/n PA3243U-1ETC. \$25.00 or B.O. 925-443-7729

Cable Modem Motorola Surfboard SB5100, new in the box, \$45 925-443-7531

PC: Antec LanBoy case, 1.2ghz Athlon, 512mb RAM, 40gb HD, Radeon video, dvd-rom, floppy, nic, modem, keyboard & mouse - \$350 925-479-0787

Mac G4 MHz,896MB RAM,MacOS X,xtra video card, SCSI,20&60 Gig HDs,DVDROM,Zip, 17in.mon, scnr,MSOffice,more. priced sep.or pack-age 925-513-3538

GIVEAWAY

Whirlpool washer and Kirkland dryer, both work, you haul away, 925-443-3621

Thomas the Tank Engine Train Table and misc. track accessories; excellent condition. 925-846-3278

Windsurfer One-Design Good Condition, Booms need a little repair work. 925-240-6237

FREE to a Loving Home. 16yr old Thoroughbred and 30yr old quarter horse. Must go together. Please call for specifics. 925-634-8162

Large cut Pine tree trunks. Good wood burning. You haul. 925-455-4736

White porcelain single basin kitchen sink, 3 gold (2 pendant like and one candle)hanging chandeliers, u pick up. free. 925-964-0534

Three 27 inch bicycle fenders. If you take one you have to take them all. 925-447-5359

Stationary bike with moving handle bars, adj. seat and mileage counter. Great condition. 209-836-3041

Childrens swingset w/slide and toddler swing. 5 years old. Some disassembly required. 925-449-5480

Bedroom furniture. Headboard, two dressers, two nightstands, tv stand. Come and get them... 925-846-2903

FREE - 2 twin mattress/box spring sets, almost new,1 with frame 925-447-4615

ladies bowling balls, 2 each, one 9# and one 10#. 925-449-9294

HOUSEHOLD

Two toddler fire truck beds with working siren night lights. (Originally from Toys R Us @ \$150 each.) A crib mattress works well with them. Good for about age 2 to 6. \$30 each. 449-7525

Oak rolling computer desk/cart. Pullout keyboard tray and printer shelf. \$80 925-294-9022

Formal dining table (glass) \$300 925-449-1481

Tanning bed, Sunquest wolf. Less than 4 years old, paid over \$2,200, very little usage, excellent condition. \$1,200. 925-648-0671

Thomasville couch & 2 chairs, very good condition. Retail for \$4100 will sell for \$3000 or obo 925-240-0794

25 inch Mitsubishi color console TV in oak cabinet; looks nice and has good picture. Has remote. \$25.00 925-846-3278

Emerson microwave. Runs good. Have too many. \$20.00. 510-537-7222

Baby crib, portable, mattress, quilted blanket, and matching bumper guard, crib sheet and blanket, \$125.00 OBO. 925-606-1637

Sofa Broyhill excellent cond also Fabric recliner Felxsteel excellent cond 400.00 for pair 925-443-3223

Matching living room set - queen sofa bed, love seat, coffee table w/ 4 foot-stools, 2 end tables & lamps. Light oak. Very good condition. \$500 209-836-4605

Red metal toddler bed, \$10, rocking chair, \$15. Both in good condition. 925-371-1076

Queensize Custom Headboard with glass panels, lighting and side cabinet storage. Like new condition 925-443-3259

Full Bedroom set, Calif King, \$1,800 Materess, all for \$1100. 52 inch projection TV and oak entertainment center, \$1000 925-634-0667

Large L-shaped home office desk, with hutch. Beech veneer with black accents, lots of storage. 925-706-9281

Twin Beds, dark pine, incl. mattresses and boxspring, bedside table, and dresser. \$300.00 925-447-1603

Prima Pappa Highchair, Neptune Blue design. 1 yr. old, excellent condition. Tons of features. Current price at Babies R Us \$159.99. Asking \$95. 925-455-4208

ALL \$10....Small Microwave. Perfect for student, garage or small kitchens. Study desk 44x18x31 great size for studying or art projects 925-846-2903

Metal Office Desk; Solid Wood Crib; Full Bed Head/Frame; Washer/Dryer; Refrig. Excel Cond(31x31x68); Gas Range/Oven (30in). Best Offer. 650-269-6531

Oak bedroom set, dresser with mirror, 2 nightstands, and queen headboard for \$150. 925-447-5612

BOOKSHELVES-Gorgeous White Birch and wrought iron. 4 tier shelves. \$250.00 925-454-8874

Refrigerator, GE, energy saver, \$350. Oak TV stand w video/DVD drawer, \$40. 925-485-4321

Hutch for girls desk, white with flower design. Excellent condition. \$75.00 925-240-0794

Oak Entertainment Center. 3 shelves in enclosed smoked glass, 1 drawer, 1 sliding shelf, fits some 27IN TVs, \$150.00 OBO. 925-606-1637

MISCELLANEOUS

Moving sale. Sofa/Loveseat \$150. Glass top Dinette table 4 chairs \$125. Oak coffee table \$100.00. 925-449-7371

Moving Sale (Shine Only) Sunday, Feb. 15. 1157 Lakehurst Rd., Livermore Couches, Book Shelves,Exercise equipment,Clothing and much more. 925-447-8129

Qual Craft Pump Jack Scaffold setup: 2-Pump Jack 2200Q, 2-Guard Rail brackets 6-Wall braces Needs uprights, decking, and guardrail \$100 510-653-1017

White 52 inch ceiling fan, never used, \$30. 925-371-1076

Dress Barn Gift Certificate. Worth \$50.00, will sell for \$45.00. 925-519-0578

Canopy, 10ft X 20ft, white, new, used 2 weeks, will include extension poles for extra height, like \$160 one at Costco, \$70 925-447-2508

Moving boxes, enough to move a large household. Packing material too. \$75 925-964-0534

SACRAMENTO KINGS Tickets. Sunday, March 28th @ 6pm vs. Washington Wizards. Great seats: Section 106, Row R, Seats 3 & 4. Face value \$99.50 each. 925-606-1286

MOTORCYCLES

KawasakiKZ650 non-op. but assemblbld in good cond. Tons of spare/replacmnt pts. Reclaiming garage space \$250B/O 209-914-7134cell 209-836-2737

1996 - Suzuki DS-80 trail bike,5 speed shifter great starter bike. 1,000 or O.B.O 925-462-5260

1999 - HONDA XR100 daughter bike, \$1,300 925-516-6552

1999 - KTM 50cc senior pro dirt bike. \$1000.00 Great condition, Lots of fun for kids! 209-848-8045

1997 - BMW R1100RSL, Rare, Ohlins, Tk. bag, New Tires, Sdl.Bags, New tune-up, 88k on Bike, 44k mi on Factory

See complete classified ad listings at
<https://www-ais.llnl.gov/newsline/ads/>

rebuilt engine. Runs perfectly. \$4000. 650-237-0000

1981 - Yamaha 900 runs/looks great, recommend carb. rebuild. Reclaiming space in Garage. \$800B/O 209-914-7134 cell 209-836-2737

2001 - 2001 HARLEY FXDL Low Rider, Jade Green,chrome lace wheels,chrome extras, removable w/shield. 5K miles,5 yrs on wrnty \$16,500 510-881-8536

MUSIC INSTRUMENTS

\$500 OBO. Baldwin Acrosonic Upright Piano - Reddish brown mahogany finish in good condition but needs tuning. 925-846-4188

Antique Upright Player Piano (no longer has internal player parts) Nice Sound, needs refinishing. Paid \$800, asking \$400, obo 925-447-5052

Emerson piano, very good condition, circa 1920s. Tuned to A=440. \$350.00 includes bench and tuning within 20 m of LLNL. 925-371-6997

PETS & SUPPLIES

BEAGLE PUPPIES. AKC registered. Show quality. Parents on site. Females \$700. Males \$600. Available end of Feb. Pick yours now! 925-449-9078

Free rabbit cages on stackers with pans. 1 30x30 single, 1 20x20 2 hole. Both in great condition. 925-455-5736

Saddle: Dressage saddle by English Custom Saddlery. 17 inches, black leather, 1 yr old, was \$1,100 new, now asking \$800/obo. 925-373-8895

Dog crate 26 in. tall for 45lbs or less. 4 months new and very clean. Asking \$35.00. 408-838-7622

RECREATION EQUIPMENT

Gold club travel case. Durable hard case with built in combination lock in good condition. Forest green color. Asking \$30 925-455-4208

Ice Skates: Reidell figure skating ice skates. White leather, womens size 5. Nearly new, only worn three times. \$50/obo. 925-373-8895

Stair Climber (Climb Max) by Tectrix. Health Club/Gym Quality. Excellent condition. Rarely used. Was \$3,000 now \$750. 925-890-5474

RIDESHARING

Express your commute, call 2-RIDE for more information or visit <http://www-llnl.gov/tsmp>

Modesto - Vanpool, Modesto to LLNL, 7:00 to 3:30 shift. 209-848-0365, ext. 3-0487

Pleasant Hill/Concord/Walnut Creek - Seats available on luxury van. Arrive at lab 7:45AM, depart 4:30PM 925-947-6969, ext. 2-4206

BERKELEY - Rider/driver needed to complete a 4 person carpool to north Berkeley. Leave Berkeley at 7 am; leave LLNL at 4:40 pm. 510-524-8332, ext. 2-5949

SERVICES

CRAB FEED Livermore Barn Feb. 14, 5:30-11:00 tickets are \$30 Single or \$55 couples. Includes crab, salad, pasta and dessert! 925-413-1897

Interior and Exterior painting. Excellent workmanship. Over 20 years experience. Good prices, free estimates. 510-537-7222

Computer Networks for Home and Small Offices. Installation, Troubleshooting and Security. Linux and Windows Network Expertise 209-835-5692

Rain Gutter Specialist - gutters cleaned or replaced, custom work, 25 years, service to most areas in Northern Ca 925-828-6117

Handy Man Winter Sale - specialize in decks, fences, framing, retain walls, arbors, trellises in Tri-Valley,Bay Area and east of Altamont. 925-556-9424

Piano Tuning--your place or mine. 10% LLNL discount on regular tuning. 925-

371-6997

SHARED HOUSING

Manteca - Large room to rent with private bath. Great location. \$650/mo includes util. 209-612-3695. 209-612-3695

Livermore - Room for Rent: \$600 per month, includes utilities. Non smoker, call (925) 449-6898. 925-449-6898

Livermore - furnished room for rent. Clean/quiet. No pets/no smoking. \$550.00/month. Share utilities 1/3. Deposit. Mature adult. 925-449-1128

San Ramon - Room with private bath. \$650.00 including utilities. Full Kitchen priviledges. Spacious home in San Ramon. No pets/smoking. 925 829-4306

TRUCKS & TRAILERS

1995 - Chevy Tahoe, AT, leather, all power, alloy wheels, new tires, tow pkg w/elec brake,anti-lock brakes, Stereo/CD, air, excel con,132K mi.\$9,200 OBO. 831-637-1949

1994 - 1994 Full size 4x4 2 door chevy blazer, 5.7 liter, a/c, ps,pdl, ps, pw, rear hitch, Very clean, \$8700 925-672-3482

1993 - Jeep Wrangler, 4.0 ltr inline-6 w/5 sp /lift pkg/springs/front-back shackles/rocker panels/rock crawler bumpers and more. \$6K OBO 209-612-9943

1983 - Travel King Trailer: Sleeps 3-4, 12 ft., sink, stove, fridge, toilet, solar panel, etc. \$1500 OBO, you haul. 925-447-2130

2002 - Toyota Tundra Limited, Extended Cab,V8, 30k miles, \$20,000 209-588-0508

1999 - Chevy Silverado, LS Ext Cab 2wd, 44K miles, 5.3L engine, white/grey, power windows, locks and seats, cruise, CD, hard tonneau cover, \$14,900/OBO 925-447-7160

VACATION RENTALS

Soooo cute beach cottage in Santa Cruz. 2 bedr, 2 bath. 4 blks from ocean. Fully equipped kitchen. Spa. 925-245-1114

SOUTH LAKE TAHOE - 3 Bedroom 2 bath Chalet, nicely furnished, all amenities, close to all skiing, RESERVE NOW for OPENINGS! 209-599-4644

Maui, HI - Kahana Reef oceanfront 1BR/1BA condominium. Beautiful two-island view, oceanside pool, and BBQs. LLNL rates for year-round reservations. 925-449-0761

Soda Springs/Donner Summit, Classic A frame, 2BR/1BA+Loft sleeps 8, Walk to Royal Gorge 5 min to Sugar Bowl \$250 wknd \$550/week call for availability 209-836-3481

Lake Tahoe - The Ridge at Tahoe, 2 bdrm suite, kitchen w/all amenities, avail 2/8-15/04, 209-321-4598

WANTED

RETIREEES! Miss being around children? Occasional evening/weekend childcare wanted for one well-behaved fourth grade girl. Livermore. 925-455-5323

Home to rent on a month to month basis in the local area. Must have 3 bdrm./ 2 ba. and allow pets. New to LLNL. 408-281-9664

Need moving boxes. Can pick-up, your schedule. Please. 925-648-8008

Trampoline and a portable basketball system in good condition. 925-449-3499

Please note:

Services and merchandise listed in *Newsline* are not guaranteed. It is up to the buyer to scrutinize services purchased.

AROUND THE LAB



Filtering system puts up the block for malicious code

By David Schwoegler

NEWSLINE STAFF WRITER

The executable-attachment file-blocking system has been filtering e-mails entering the Lab since Jan. 29. In addition to “.exe” attachment files, there are about three dozen fairly common executable extensions that the systems keep out.

And all is going well according to Dave Grubb, who recently became head of Livermore’s network security team, a part of the Lab’s Cyber Security program. When it comes to computer matters, he’s in charge of firewalls, vulnerability assessment and remediation, intrusion detection and response, and malicious code.

Grubb says his team is waiting for the first big test that should occur as soon as the next major virus hits the Internet. When such malicious code is released it literally goes global in just minutes — long before anti-virus software vendors can supply definitions to their clients. It’s that window of opportunity — between the release of new malicious code and distribution of its definition by software vendors — that the new executable-attachment file-blocking system helps to close.

According to Grubb, there’s been practically no employee feedback so far about the new e-mail restriction, “...except for a couple of people who asked why we hadn’t done this earlier?” Grubb thinks that’s a healthy indication. “In computer security, if you do your job well, your actions are transparent, and nobody

notices that you’re doing it,” he said.

Grubb explained that because the Lab’s virus definitions are maintained and up to date, anti-virus software is stopping incoming executable-attachments because these files contain known viruses. But the next new malicious code release, for which definitions won’t be available immediately, will allow the Lab to test its new system and see just how many executable files are intercepted before new definitions can be put in place.

“This closes a window of vulnerability,” Grubb said. “Meanwhile our anti-virus software remains in place and updated. We are taking a real ‘belt and suspenders’ approach to keeping Lab computers free from malicious code.”

DHS scholarship and fellowship applications are now available

Applications are now available for students seeking Department of Homeland Security college scholarships or fellowships for study in science and technology fields for the coming academic year.

As part of their grants, the students will undertake 10-week internships during the summer of 2005 at DHS-designated facilities, including national laboratories such as LLNL.

“We want to make researchers aware of our program, so when we contact them for internship opportunities for our students, they’re ready,” said Igrid Gregory, a DHS program manager.

The 50 current DHS scholars and 50 current fellows will be serving internships at DHS-designated facilities, such as LLNL, during the summer this year.

The DHS Scholarship Program is open to undergraduate (incoming juniors for fall 2004) and the Fellowship Program to graduate students interested in pursuing science and technology needed for protecting

the nation against terrorist attacks. Another 100 participants are expected to be chosen. In the 2003 pilot program, more than 2,500 students applied.

Areas of study include: engineering, mathematics and computer science as well as physical, agricultural, biological, social and behavioral sciences.

Open to U.S. citizens with a minimum cumulative 3.3 GPA, the program will provide students with full tuition and a stipend. The scholarships are for two years and provide a stipend of \$1,000 per month for nine months, plus tuition and fees. The three-year fellowships provide a stipend of \$2,300 per month for 12 months, plus tuition and fees.

According to Barry Goldman, LLNL’s DHS Scholarship/Fellowship program manager, the Laboratory’s Homeland Security Organization participated in an internship fair in December with a five-person delegation to meet the first year recipients. The Lab delegates were impressed with the credentials of the

scholars and fellows.

Noted one delegate, “Some of the undergraduates have already done more research than most second-year graduate students. They are highly directed.”

Based on the resumes received, LLNL researchers have been identifying projects and waiting for DHS to allow the recipients to communicate their choice of labs/research projects. LLNL projects range from biological, chemical, and nuclear detection to systems-level assessments to dispersal modeling of hazardous materials to bioinformatics and data mining and more.

More information and application materials are available at this Website, <http://www.orau.gov/dhsed/>, or contact Goldman at 2-5177 or by e-mail at goldman1@llnl.gov.

The DHS Scholarship and Fellowship Program, including the internship program, is administered by the Oak Ridge Institute for Science and Education.

ENGINEERING

Continued from page 1

In an informal presentation often peppered with humor, Patterson outlined goals for 2004 and passed along congratulations for milestones achieved in 2003. Citing the presence of Engineering on all six R&D 100 awards in 2003, Patterson proudly proclaimed “if you want to win one of these, you have to have Engineering on your team. We make it happen.”

“Engineering has infiltrated every part of this Lab,” he later quipped. “We are in complete control.”

Patterson congratulated the various engineering

teams working on a wide variety of Laboratory projects, among them the JASPER gas gun and subcritical test teams at the Nevada Test Site, the ISO 9000 team, and especially the corps of engineers working on the National Ignition Facility.

“There is nothing else like this in the world,” he said, praising NIF’s move from construction project to first light and other experimentation. “Finishing this will take a world class effort and we are up to that task.”

Patterson said he drew that conclusion shortly before his return to the Lab last August. Patterson was a distinguished professor of precision engineering at the University of North Carolina at Charlotte before returning to the Lab as an associate director (he left LLNL in 1993 to join the university). During his

absence he said he studied or visited a number of engineering groups and organizations, “and I have not seen any group equal to what we have at the Laboratory.”

Patterson cited the 10 values unveiled by Director Michael Anastasio and senior management last year as reasons for his return to the Lab. He then implored his employees to continue to work by those values, adding that they were a strong representation of the Engineering Directorate viewpoint.

Patterson concluded by briefly mentioning challenges over the coming year in areas of technology and operations, among them emphasis in bio-engineering and pulse power, continued success on NIF, internal training and growing the directorates post-doc program.



MICHAEL ANTHONY/TID

Nuclear Society visit

Larry Foulkes (third from left), president of the American Nuclear Society and consultant in reactor physics at Bettis Laboratory, came to LLNL Jan. 27, as part of his official visit to the San Francisco Bay Area. At LLNL, Foulkes presented a seminar on the status and future of nuclear science and technology in the U.S, and he met with staff who are engaged in nuclear energy research. He also met with Energy and Environment Associate Director C.K. Chou, Craig Smith of E&E and Hal Grabowske, acting deputy director of Science and Technology. He received briefings on programmatic activities at LLNL, and toured the NARAC and NIF facilities.

ISRF

Continued from page 1

Ret. Adm. Robert Foley, vice-president of laboratory management for the University of California, said, “The opening of the ISRF is important because sometimes we’re behind the power curve. This building gives us the opportunity to get out in front of the curve.”

It is also important, Foley added, in recruiting the “best and the brightest” researchers to have first-class facilities, such as the ISRF.

Lab Director Michael Anastasio, whose remarks opened the event, noted that the world changed for the Laboratory and the nation on September 11, adding that the International Assessments Program (Z Division) has been growing rapidly since then.

David Crandall, the assistant deputy administrator for the NNSA’s Office of Defense Programs, said, “This has been a great year for this Laboratory.

“We do annual evaluations for how the Laboratory did for our program and the Defense Programs’ effort was truly outstanding and contributed value to our nation.”

Crandall presented several awards. One was given to Roy Van Pelt, the president of Benica-based Lathrop Construction Associates Inc., whose firm constructed the new facility. Other awards went to Lab employees Roy Neyer, the ISRF project manager; Mike Sa, the facility’s construction manager; and Ken Lane, the lead inspector.

Melanie Elder, leader of the International Assessments Program, said, “We’re very passionate and very committed, and this building is going to help us get our job done better.”

Former Z Division leader Buddy Swingle, who was unable to attend yesterday’s ceremony, wrote in a letter:

“The ISRF represents an important commitment by the DOE and the Laboratory to the application of science in the public interest. LLNL’s contributions in the past in the area of intelligence research have been truly remarkable.”

The ISRF will help Lab researchers meet the U.S.

Imagery Science Laboratory dedicated to Rod Kramer

During an afternoon open house, held as part of Thursday’s ribbon-cutting ceremonies for the International Security Research Facility (Bldg. 140), Z Division employees dedicated the Rod Kramer Imagery Science Laboratory in the new building.

The laboratory is the focal point for research, development, and application of state-of-the-art imagery exploitation, imagery understanding, and information fusion techniques for solving intelligence problems.

The Imagery Science Laboratory was dedicated in the memory of Rod Kramer, a long-time LLNL employee who died unexpectedly in October 2002.

Kramer was a political scientist in Z Division, specializing in imagery analysis. He played a seminal role in numerous critical assessments and was a leader in the development of what has become the largest imagery intelligence effort at any national laboratory.

“Rod’s death was a staggering loss,” said Wayne Shotts, NAI associate director and long-time friend of Kramer, “not only to his family and friends but also to the nation. He was a leading expert in imagery analysis and the loss of his experience and insight is keenly felt.”

Said Melanie Elder, Z Division leader, “Rod was the consummate professional. His knowledge, judgment, and influence were felt across the division.”

Kramer’s widow, Lynn, attended the dedication and expressed her appreciation for the honor given Rod in naming the lab for him.

intelligence community’s growing need for expert analysis of the threat posed by proliferation or terrorist acquisition of weapons of mass destruction.

The new two-story facility, known also as Bldg. 140, consolidates the majority of Livermore’s intelligence-related work into a single building. It will replace the current main building (Bldg. 261) that is nearly 40 years old and lacks the needed infrastructure for 21st century digital communication and information fusion activities.

“International security research is a growing area of the Laboratory’s nonproliferation mission,” Shotts has noted.

With the International Security Research Facility, Livermore researchers will have “essential electronic connectivity with the U.S. intelligence community,” Shotts said.

“This connectivity will permit LLNL analysts to take advantage of the advances in information technology that are revolutionizing the way intelligence information is distributed, analysis is performed, and products are peer-reviewed and disseminated,” he

added.

The 64,000-square-foot building will house NAI’s International Assessments Program, the Laboratory’s Information Operations and Analysis Center (IOAC) and other intelligence-related activities.

The ISRF was designed by the San Francisco-based architectural firm of Edward J. Gee & Associates. The ISRF has been completed on schedule and within its budget of about \$25 million.

“We made a special effort to bring day lighting and openness into the building to make it a more worker-friendly environment,” Neyer said. “These goals required a special design because of the security requirements of the building.”

Employees are expected to move into the building in July, following the installation of access controls and completion of the Department of Energy security accreditation process.

Earlier in the week, Elder said the demand for intelligence assessments has dramatically accelerated since the September 11, 2001 attacks.

“The ISRF will help the Laboratory meet the U.S. government’s growing need for accurate and timely expert analysis about the proliferation of weapons of mass destruction,” Elder said.

Laboratory international security research assists the DOE as well as other federal agencies, the U.S. military, and senior policy makers.

The ISRF has 180 offices, along with conference rooms, video teleconference facilities, an extensive document library, a digital photo lab, a print plant and an imagery science laboratory named for former Z Division analyst Rod Kramer, who died unexpectedly in 2002 (see story above).

“The Laboratory provides a broadly informed, multidisciplinary resource to the intelligence community and policy programs,” said Wes Spain, deputy leader of the International Assessments Program. “This facility will allow us to apply cutting-edge information technology tools to our work.”

ELEMENTS

Continued from page 1

The results have been accepted for publication in the Feb. 1, 2004 issue of *Physical Review C*.

“These elemental discoveries underscore both the value of federally-supported basic research and the benefit of unfettered international scientific collaboration,” Secretary of Energy Spencer Abraham said.

The experiments produced four atoms each of element 115 and element 113 through the fusion reaction of calcium-48 nuclei impinging on an americium-243 target.

Chemistry and Materials Science Associate Director Tomas Diaz de la Rubia said the new element discovery in addition to the work performed by two other CMS scientists on the structure of the liquid-vapor interface of water that appeared in *Science* last week points to the duality of the scientists’ roles.

“These same scientists are engaged not only on doing world-leading discovery class science, but in supporting our most important programs in national security — both stockpile stewardship and non-proliferation/homeland security,” he said.

The new element team observed three similar decay chains consisting of five consecutive alpha decays that, combined, took less than 30 seconds and terminated in a spontaneous fission of an element 105 (dubnium) isotope with a very long half-life (16 hours), making the discovery of particular interest to chemists. An interesting fourth decay chain also was observed that consisted of decays that were unlike the previous three chains.

Joshua Patin, Livermore’s primary data analyst on the team, said the three similar decay patterns were a “positive identifier that something good had been seen because the long decay chains just don’t happen that often.”

“This just opens up the horizon on the periodic

table,” said Ken Moody, Livermore’s team leader. “It allows us to expand the fundamental principles of chemistry. From new chemistry comes new materials and new technology.”

Scientists at Livermore and JINR independently verified the data.

An efficient accelerator is needed to obtain an intense calcium-48 beam. The results have only been achieved to date on the JINR’s U400 cyclotron. Associates at JINR’s ion-source group produced the intense calcium beams while Livermore supplied the americium target material.

“Twenty years ago, no one would have ever thought that this was possible because the technology to produce such an element just wasn’t there,” Patin said. “But with the efficiency of the Russian cyclotron and the ability to run the experiments for long periods of time, we were able to achieve this tremendous accomplishment.”

Members of the Livermore team include Patin, Moody, John Wild, Mark Stoyer, Nancy Stoyer, Dawn Shaughnessy, Jacqueline Kenneally and Ronald Loughheed.

Livermore has had a long-standing heavy element group since the inception of the Laboratory in 1952. The group has been successful in the discovery of several new elements over the years because it has access to unique materials to perform the experiments. In 1998 and 1999, the Laboratory announced the discovery of elements 114 and 116, respectively.

“This is quite a breakthrough for science,” Diaz de la Rubia said. “We’ve discovered two new elements that provide insight into the makeup of the universe.

“For our scientists to find two more pieces of the puzzle is a testament to the strength and value of the science and technology at this Laboratory.”

Scientists in Livermore’s Seaborg Institute, named after the renowned nuclear chemist, reinvent nuclear and bionuclear science to enable out-of-the-box solutions to national problems.

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For images and animation, go to <http://www.llnl.gov/llnl/06news/NewsMedia/element.html>.



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